

AMENDMENTS TO THE CLAIMS

1. (Previously presented) A system having diamond-like carbon (DLC) contact surfaces, comprising:

a pair of relatively movable, facing DLC contact surfaces at least one of which is coated with a film of at least one of a-C (amorphous carbon) DLC and a-C:H (hydrogenated amorphous carbon) DLC, and

a lubricant (L) interposed between said DLC contact surfaces, said lubricant (L) comprising:

a lubricant base oil (A) containing a base oil (X) as a main component,

a 0.001 to 0.2 mass% molybdenum dithiocarbamate as a sulfur-containing molybdenum complex (B) in terms of molybdenum elements,

at least one friction modifier (C) selected from C1-C40 esters of aliphatic monocarboxylic acids, and

a sulfur-free metal detergent (D) selected from alkali metal or alkaline earth metal salicylates,

wherein said base oil (X) consists at least one of a hydrocracked mineral oil, a wax-isomerized mineral oil, and a poly- α -olefin base oil, and has a kinematic viscosity of 3.5 to 5 mm²/s at 100 °C, a total aromatic content of 0 to 2 mass%, and a total sulfur content of not higher than 0.002 mass%.

2. (Previously presented) The system according to claim 1, wherein said lubricant (L) further comprising a phosphorus-based anti-wear agent (E).

3-4. (Cancelled)

5. (Previously presented) The system according to claim 1, wherein said lubricant base oil (A) has substantially no sulfur content.

6. (Original) The system according to claim 1, wherein said DLC contact surfaces are contact surfaces provided in an internal combustion engine.

7. (Original) The system according to claim 1, further comprising, in addition to said DLC contact surfaces, a pair of relatively movable, facing non-DLC contact surfaces having no DLC film, wherein said lubricant (L) is interposed both between said DLC contact surfaces and between said non-DLC contact surfaces.

8. (Previously presented) A method of lubricating a system of claim 1, comprising lubricating a pair of relatively movable, facing DLC contact surfaces at least one of which is coated with a film of at least one of a-C (amorphous carbon) DLC and a-C:H (hydrogenated amorphous carbon) DLC, with a lubricant (L) interposed between said DLC contact surfaces, said lubricant (L) comprising:

a lubricant base oil (A) containing a base oil (X) as main component,

a 0.001 to 0.2 mass% molybdenum dithiocarbamate as a sulfur-containing molybdenum complex (B) in terms of molybdenum elements,

at least one friction modifier (C) selected from C1-C40 esters of aliphatic monocarboxylic acids, and

a sulfur-free metal detergent (D) selected from alkali metal or alkaline earth metal salicylates,

wherein said base oil (X) consists at least one of a hydrocracked mineral oil, a wax-isomerized mineral oil, and a poly- α -olefin base oil, and has a kinematic viscosity of 3.5 to 5 mm²/s at 100 °C, a total aromatic content of 0 to 2 mass%, and a total sulfur content of not higher than 0.002 mass%.

9.-17. (Cancelled)

18. (Previously presented) The method according to claim 8, wherein said lubricant (L) further comprising a phosphorus-based anti-wear agent (E).

19. (Previously presented) The method according to claim 8, wherein said lubricant base oil (A) has substantially no sulfur content.

20-21. (Cancelled)

22. (Currently amended) The system according to ~~claim 21~~ claim 1, wherein said esters of aliphatic monocarboxylic acids as friction modifier (C) comprise glycerin monooleate.

23. (Previously presented) The system according to claim 1, wherein a content of said friction modifier (C) is 0.05 to 3.0 mass%, and a content of said sulfur-free metal detergent (D) is 0.01 to 1 mass% in terms of metal elements, based on a total amount of said lubricant (L).

24. (Previously presented) The system according to claim 2, wherein a content of said phosphorus-based anti-wear agent (E)

is 0.01 to 0.1 mass% in terms of phosphorus elements based on a total amount of said lubricant (L).

25-26. (Cancelled)

27. (Currently amended) The method according to ~~claim 26~~ claim 8, wherein said esters of aliphatic monocarboxylic acids as friction modifier (C) comprise glycerin monooleate.

28. (Previously presented) The method according to claim 8, wherein a content of said friction modifier (C) is 0.05 to 3.0 mass%, and a content of said sulfur-free metal detergent (D) is 0.01 to 1 mass% in terms of metal elements, based on a total amount of said lubricant (L).

29. (Previously presented) The method according to claim 18, wherein a content of said phosphorus-based anti-wear agent (E) is 0.01 to 0.1 mass% in terms of phosphorus elements based on a total amount of said lubricant (L).